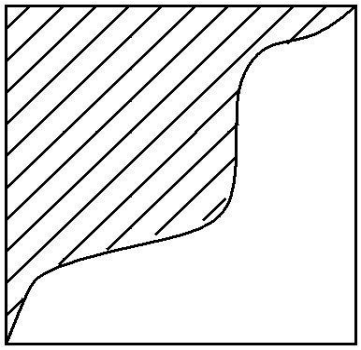
EC-7 HYDROSEEDING

Refer to: ITD Standards and Specifications for Highway Construction, Sections 621 and 711.



Standard Symbol

Definition and Purpose

Hydroseeding typically consists of applying a mixture of wood fiber, seed, fertilizer, and stabilizing emulsion with hydro-mulch equipment, which temporarily protects exposed soils from erosion by water and wind.

BMP Objectives

- ☐ **Perimeter Control**
- ☒ **Slope Protection**
- ☒ **Borrow and Stockpiles**
- ☒ **Drainage Areas**
- ☐ **Sediment Trapping**
- ☐ **Stream Protection**
- ☒ **Temporary Stabilizing**
- ☒ **Permanent Stabilizing**

Appropriate Applications

Hydroseeding is applied on disturbed areas requiring temporary protection until permanent vegetation is established or disturbed areas that must be disturbed again following an extended period of inactivity.

Limitations

- Hydroseeding may be used alone only when there is sufficient time in the season to ensure adequate vegetation establishment and coverage to provide adequate erosion control. Otherwise, hydroseeding must be used in conjunction with a soil stabilizer or mulching.
- Steep slopes are difficult to protect with temporary seeding.

Design Parameters

- In order to select appropriate hydroseeding mixtures, an evaluation of site conditions shall be performed with respect to:
  - Soil conditions
  - Maintenance requirements

  - Site topography
  - Sensitive adjacent areas
  - Season and climate
  - Water availability
  - Vegetation types
  - Plans for permanent vegetation
- Selection of hydroseeding mixtures shall be approved by a landscape architect.

The following steps shall be followed for implementation:

- Hydroseeding can be accomplished using a multiple- or one-step process. The multiple-step process ensures maximum direct contact of the seeds to soil. When the one-step process is used to apply the mixture of fiber, seed, etc., the seed rate shall be increased to compensate for all seeds not having direct contact with the soil.
- Prior to application, the slope, fill area, or area to be seeded shall be roughened with the furrows trending along the contours.
- A straw mulch shall be applied to keep seeds in place and to moderate soil moisture and temperature until the seeds germinate and grow.
- Each seed bag shall be delivered to the site sealed and clearly marked with species, purity, percent germination, dealer's guarantee, and dates of test. This documentation shall be provided to the Engineer. The container shall be labeled to clearly reflect the amount of Pure Live Seed (PLS) contained. All legume seed shall be pellet-inoculated. Inoculant sources shall be species-specific and shall be applied at a typical rate of 2 kg of inoculant per 100 kg of seed (2 percent inoculant by weight).
- Fertilizer shall be pelleted or granular form.
- Follow-up applications shall be made as needed to cover weak spots and to maintain adequate soil protection.
- Over-spray onto the travel way, sidewalks, lined drainage channels and existing vegetation shall be avoided.

Maintenance and Inspection

- Conduct inspections as required by the NPDES permit or contract specifications.
- All seeded areas shall be re-seeded, fertilized, and mulched within the planting season, using not less than half the original application rates. Any temporary revegetation efforts that do not provide adequate cover must be reapplied as required.
- The Contractor is responsible for maintaining all slopes to prevent erosion.